

Appln No.: 10/605,671
Amendment Dated: August 5, 2005
Reply to Office Action of May 9, 2005

REMARKS/ARGUMENTS

This is in response to the Office Action mailed May 9, 2005 for the above-captioned application. Reconsideration and further examination are respectfully requested.

Applicants **again** note that an Information Disclosure Statement was filed in this case on January 24, 2005, after the mailing of the first Official Action. Consideration of this paper and return of initialed Form PTO 1449 with the next action are requested. This paper is present in the image file wrapper for this application, and therefore should be available to the Examiner.

The Examiner rejected claims 1-30 and 35-60 under 35 USC § 112, second paragraph. The basis for this rejection is that, based on formulation 13, the Examiner is of the opinion that these claims are not directed to what applicants consider to be their invention. Applicants point out, however, that this example is within the scope of claim 31, since it provides adequate properties provided that the thickness of the article made from the material is sufficient. As a pure composition claim, however, where no thickness of the article can be implied, different limitations are applied as set forth in the claims. Thus, the claims fully reflect what Applicants consider to be their invention, and the rejection should be withdrawn.

The Examiner has also maintained the rejection of claims 1-7, 12-17, 20-22, 29-36, 39-41, 48-53, 56-68 and 61 as anticipated by Okamura, US Patent No. 5,451,632. Applicants again disagree.

In order to anticipate a claim, the reference relied upon must disclose each and every element of the claimed invention. As previously noted, while Okamura refers to titanium dioxide, it does not specify that the titanium dioxide has a coating of an organic material. The teaching of using a silicone oil for "improvement of dispersion" (Col. 12, lines 57-59) is not an express teaching of coated TiO₂ and therefore is not sufficient to establish anticipation.

The Examiner has responded to this argument by saying it is "of no consequence to the rejection." The Examiner says this is so because the time for addition of the dispersing agent to the colorant is not specified in "many of the claims." It is noted that despite the caveat that clearly indicates that the argument is only applicable to some and not all of the claims, no distinction has been drawn by the Examiner in maintaining the rejection as applied to the method claims (Claims 48-53, 56-68 and 61). Thus, at least as to these claims, the rejection must be withdrawn.

Furthermore, whether the Examiner's argument has merit with respect to the composition claims or not, what is specified is that the TiO₂ must have an organic coating. The Examiner has not shown how this element of the claims is met. He makes an unsupported statement that for

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the oil to act as a dispersant it must somehow be coated onto the pigment particles. Applicants challenge the Examiner to provide a scientific basis for this statement consistent with the requirements of *In re Albrecht*, or to withdraw the argument.

Furthermore, there is no admission on Applicants' part as to anything other than that the reference does not meet the required legal standards for anticipation. The words of the reference admit alternative interpretations and do not **require** that the TiO_2 be supplied in a pre-coated manner, or that any coating be achieved.

The Examiner also now argues that the limitation of 3% siloxane as a whole is actually met, because he argues (without explanation or support) that art would understand that this value was maintained for the composition as a whole no matter what additional materials are added, even though the percentage is only provided for the two component mixture. Applicants respectfully submit that this disclosure of the reference does not support this contention. As a case in point, the Examiner is directed to Examples 9C and 10C. These examples contain 5% of PC-PDMS H which is a 0.2% PDMS copolymer (Table 1A). They also contain 45% PC and 50% filler. Based on the total polymer concentration only, the amount of PDMS is 0.02%, which is within the range. However, using the composition as a whole, the amount is 0.01%, the limiting value. The results, however, show that these compositions have good properties. Thus, given the teaching in the specification that 0.01 is a turn over point, the values presented by the specification are reasonably understood to be based on the resin part of the composition alone.

Okumura does not teach a lower limit on the amount of PDMS of 3% when TiO_2 and PC are both present in the sample as required in the present claims. Indeed, in the only compositions with TiO_2 (Table 1D and 2D) the acceptable performance is obtained with levels of PDMS much lower than 3% (around 0.2% based on the use of polymer H), but no PC is present in the same sample.

Applicants previously cited MPEP § 2131.03 with respect to anticipation rejections with overlapping ranges. The Examiner has failed to comment or respond to this citation. As noted there, however, "if the claims are directed to a narrow range, the reference teaches a broad range, and there is evidence of unexpected results within the claimed narrow range, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute an anticipation of the claims." That is plainly the case here.

It is further noted that in choosing the combinations from the reference to meet the limitations of the claimed invention, the Examiner is doing just that, **choosing**, based on the scope of the present claims and not on the reference itself. Each and every example in the reference that includes TiO_2 uses 100% PC-PDMS as the example and 100% PC as a

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comparative example. There is no express teaching of the combination of TiO_2 , PC and PC-PDMS in a single example. Thus, the Examiner must rely on teachings of Table 1B, in which there is no TiO_2 in the compositions.

For the foregoing reasons, Applicants submit that none of the claims are properly rejected for anticipation. Furthermore, if considered in the context of obviousness, it is clear that the invention as claimed offers special properties not contemplated in the reference. The present claims are directed to a specific combination of components that address a specific problem, namely that the addition of polycarbonate-siloxane copolymer to polycarbonate compositions with titanium dioxide actually reduces the flame performance of the compositions. This is an exception to the more general case in which the addition of the copolymers enhance flame performance on which the Okumura reference is based. This is illustrated in the results shown in Example 1, and in particular Table 3 where it can be seen that in compositions 1-11 containing TiO_2 , polycarbonate and PC-PDMS copolymer (12%, 2.4% siloxane), none of the compositions had a reasonable expectation of meeting the V0 flame test standard. It is not an exception that can be deduced from Okumura, however, because none of the compositions reported in Tables 1D and 2D that contain titanium dioxide (F1) and the copolymer contain any polycarbonate.

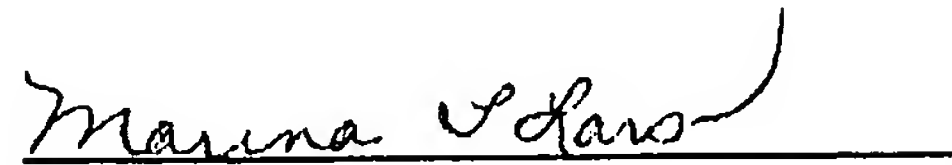
Not only does Okumura not recognize the problem that the present application solves, the disclosure of Okumura does not suggest the specific limitations of the claims. Tables 4 and 5 in this application show the results when the amount of copolymer is increased, using an organic coated TiO_2 . As shown, (example 13 and 20), adequate performance can be achieved using either lower amounts of TiO_2 or higher amounts (4% of siloxane). Example 3 uses copolymers containing 18% copolymer (3.6% siloxane) or 17.8% copolymer (3.56% siloxane) and two types of coated TiO_2 . These samples within the scope of the invention consistently achieved over or near 90% likelihood of passing the V0 test.

Furthermore, while the Examiner has again included claims 2, 32, and 49, and the claims dependent thereon (all of the rejected claims except 1, 31, and 48) in the rejection, no mention is made in the rejection of the requirement that the bulk resin is at least 50% of the composition. This means that necessarily the amount of polycarbonate-siloxane copolymer is less than 50%. No example of Okumura that contains TiO_2 contains both polycarbonate and a polycarbonate-siloxane copolymer, so there is clearly no teaching in the direction of compositions as claimed. Furthermore, it is noted that the PC-siloxane copolymer disclosed in Okumura with the highest amount of siloxane is example 2A, which has 3.8% PDMS. If this amount were used in a composition containing 50% copolymer, the amount of siloxane would be 1.9% which is outside the scope of the present claims.

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For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, reading "Marina T. Larson", is written over a horizontal line.

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